



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/120,126	07/22/1998	LAURENCE EDWARD BAYS	BAYS7-19-1-2	1847

7590 05/19/2003

FARKAS AND MANELLI
2000 M STREET NW 7TH FLOOR
WASHINGTON, DC 200363307

EXAMINER

MCLEAN-MAYO, KIMBERLY N

ART UNIT	PAPER NUMBER
----------	--------------

2187

DATE MAILED: 05/19/2003

22

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/120,126

Applicant(s)

BAYS ET AL.

Examiner

Kimberly N. McLean-Mayo

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-8 and 10-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2187

DETAILED ACTION

1. The enclosed detailed action is in response to the Amendment submitted on March 6, 2003.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-8, 10-16, 20-21 and 23 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1, 7, 13, 20 and 23 recite the limitation "a second agent lacking a dedicated clock".

There is no support in the specification for this limitation. The Applicant has referenced page 9, lines 10-14 as providing support for this limitation. However, the Examiner disagrees. The cited section states that the clock signal may be used as a general processor clock in place of an external crystal oscillator. However, this does not mean that the agent lacks a dedicated clock. The clock signal received by the second agent provides the second agent with an internal dedicated clock. The received clock signal functions dedicatedly internally to the second agent and thus is a dedicated clock.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 17-19 and 22 rejected under 35 U.S.C. 102(b) as being anticipated by Persaud (GBPN: 2074762).

Regarding claims 17-19, Persaud discloses providing a single memory access clock signal (*bus/master continuous 02 signal*) from a first agent (***claim 19***; Page 3, Lines 15-17, Page 5, Lines 2-4; *first agent is comprised of master processor/clock generator; Figure 4, Reference (s) 76, 78, 126*);

providing a presentation of the single memory access clock signal (*slave continuous 02 signal*) in synchronism with the single memory access clock (*Page 2, Lines 45-47, Lines 52-55; Page 5, Line 2, Lines 26-33; Figure 1 shows the Continuous 02 signal output on line 46 from Reference 78; Page 5, Line 2, Lines 16-33; Page 6, Line 6-51; Figures 9A-9D and 10; Page 6, Lines 46-65; Page 7, entirety; Page 8, Lines 1-22, Lines 34-46 - Persaud teaches that all of the mpu 02 signals are synchronized to each other. The Bus Continuous 02 signal and the slave continuous 02 are the same signals as the master mpu 02 signal and the slave mpu 02 signal respectively. The master mpu 02 signal and the slave mpu 02 signals are synchronized to each other and thus so is the slave continuous 02 signal and the bus/master continuous 02 signal*);

regenerating in a second agent (*one of the slave processors/clock generator; Figure 4, Reference(s) 76, 78, 126 located in Reference 14 in Figure 3; Page 4, Lines 5-10; Page 1, Line 42*) the first memory access clock signal (***claim 18*** - Page 5, L 2, L 16-33; Page 6, L 6-51; *Figures 9A-9D and 10; Page 6, L 46-65; Page 7, entire; Page 8, L 1-22, L 34-46*);

Art Unit: 2187

firstly accessing a portion (*part of the shared memory corresponding to an address of a memory request by the master processor*) of the external non-dedicated shared memory (*comprised of one of the slave memories*; Page 1, Lines 44-45) from the first agent based on the single memory access clock signal (Page 1, L 44-45; Page 2, Lines 1-7; Pages 9-10 with respect to Figure 11; Page 11, 49-58; Page 12, Lines 1-19);

secondly accessing a portion (*part of the shared memory corresponding to an address of a memory request by the slave processor*) of the external non-dedicated shared memory from a second agent based on the representation (regenerated) of the single memory access clock signal received from the first agent (Page 1, L 44-45; Pages 9-10 with respect to Figure 11- *The slave Continuous 02 signal is used to generate the CAS and RAS signals (refer to Figures 1 and 2) which are used to access the shared memory (Figure 5, Reference 190 located on one of the slave cards), therefore the Continuous 02 signal is used to access the memory. The continuous 02 signal is generated based on the bus continuous 02 and therefore, the first agent memory access is based on the memory access clock*);

wherein the step of secondly accessing the external non-dedicated shared memory follows the step of firstly accessing without a wait state there between (Page 1, Lines 46-49; Page 3, Lines 47-61; *Persaud teaches that the slave processor is inhibited from accessing the shared memory only during the clock cycle(s) in which time the master is accessing the shared memory, which means that the slave accesses the shared memory immediately after the master. Hence no wait states are used or required*).

Additionally, the shared memory is located externally to the agent and it is not used as a dedicated (unshared, private) memory because it is shared between the two agents.

Regarding claim 22, Persaud discloses means for providing a memory access clock signal (*bus/master continuous 02 signal*, Page 3, Lines 15-17, Page 5, Lines 2-4; *first agent is*

Art Unit: 2187

comprised of master processor/clock generator; Figure 4, Reference (s) 76, 78,126); means for firstly accessing the shared memory from a first agent based on the memory access clocking signal (Page 1, L 44-45; Page 2, Lines 1-7; Pages 9-10 with respect to Figure 11; Page 11, 49-58; Page 12, Lines 1-19); means for secondly accessing the shared memory from a second agent based on the memory access clock signal (Page 1, L 44-45; Pages 9-10 with respect to Figure 11- The slave Continuous 02 signal is used to generate the CAS and RAS signals (refer to Figures 1 and 2) which are used to access the shared memory (Figure 5, Reference 190 located on one of the slave cards), therefore the Continuous 02 signal is used to access the memory. The continuous 02 signal is generated based on the bus continuous 02 and therefore, the first agent memory access is based on the memory access clock); wherein the means for second accessing accesses the shared memory without a wait state after the means for firstly accessing the shared memory (page 1, Lines 46-49; Page 3, Lines 47-61; Persaud teaches that the slave processor is inhibited from accessing the shared memory only during the clock cycle(s) in which time the master is accessing the shared memory, which means that the slave accesses the shared memory immediately after the master. Hence no wait states are used or required).

Response to Arguments

6. Applicant's arguments filed with respect to claims 17-19 have been fully considered but they are not persuasive.

Regarding Applicant's argument concerning claims 17-19 and 22, the language of claims 17 and 22 recite, providing a single memory access clock signal from a first agent, providing a representation of the single memory access clock signal in synchronism with the single memory access clock. Persaud's bus/master continuous 02 signal is a single memory access clocking signal. The clock generator on the card with the slave processor receives the Bus Continuous 02

Art Unit: 2187

signal from the master [first agent], which is the clock signal referred to in the rejection, and generates a local Continuous 02 signal having a representation of the bus continuous 02 signal, refer to Figure 9A - (3) and (8); Page 5, Line 2, Lines 26-33; Figure 1 shows the Continuous 02 signal output on line 46 from Reference 78. Thus, Persaud teaches the claimed limitations.

Regarding Applicant's argument that Persaud's clocks are generated locally; it is not clear what relevance this has with respect to the claim language. The claim language states that the second agent has a clock signal representation of the memory access clock. The slave clock signal is a clock signal representation of the memory access clock signal.

Applicant's additional arguments are incommensurate with the claims. The Examiner has clearly detailed in the above rejection how the elements taught by Persaud teach Applicant's claimed limitations.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37


Art Unit: 2187

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly N. McLean-Mayo whose telephone number is 703-308-9592. The examiner can normally be reached on M-F (9:00 - 6:30) First Friday Off.

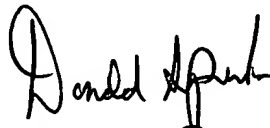
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on 703-308-1756. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7329 for regular communications and 703-746-7240 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2100.


Kimberly N. McLean-Mayo
Examiner
Art Unit 2187

KNM

May 15, 2003


DONALD SPARKS
SUPERVISORY PATENT EXAMINER
Technology Center 2100